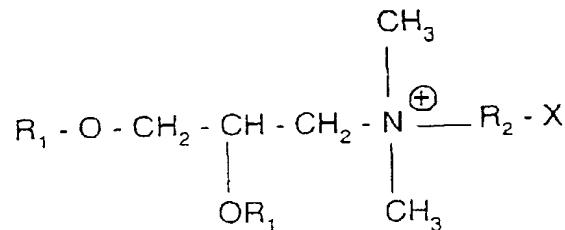


MERIAL

Improved DNA vaccines for farm animals.

**ABSTRACT OF THE TECHNICAL CONTENT OF THE INVENTION**

DNA vaccine against a pathogen affecting farm animals, in particular bovines or porcines, comprising a plasmid containing a nucleotide sequence encoding an immunogen of a pathogen of the animal species considered, under conditions allowing the *in vivo* expression of this sequence, and a cationic lipid containing a quaternary ammonium salt, of formula



in which R<sub>1</sub> is a saturated or unsaturated linear aliphatic radical having 12 to 18 carbon atoms, R<sub>2</sub> is another aliphatic radical containing 2 or 3 carbon atoms, and X a hydroxyl or amine group, this lipid being preferably DMRIE.

(Fig. none)